

# **Chart Review: Patient Return Rates and Effectiveness of Repeat Sedations** Azar N, Arias JP, Garcia MM

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## ABSTRACT

**Objective:** This retrospective chart review aimed to evaluate the rate of return for subsequent oral conscious sedation (OCS) and its effectiveness in pediatric patients between the ages of 4-8 years treated in the UTHSCSA Laredo Health Department Dental Clinic between January 2021 and January 2024.

### **MATERIALS and METHODS**

Following IRB approval, a total of 300 patient charts were evaluated from the university clinic. Only 207 (69%) patients met the inclusion criteria of 4-8 years of age and received at least one OCS while 93 (31%) patients were excluded for not meeting the age range criteria. Patient data were extracted from clinical notes and quality assurance forms for sedation effectiveness within Axium software.

## RESULTS

Of the 207 eligible patients, 98 (47%) returned for two or more OCS visits and the remaining 109 had only one OCS, either completing treatment or did not return for a second OCS (Figure 1). Among the 109 patients who received only one sedation, 77 completed their planned treatment (Figure 1). Of these patients, 64 (83%) completed treatment during a single sedation visit, while 7 (9%) returned to complete treatment with nitrous oxide and 6 (7%) required general anesthesia (GA) (Figure 2). Of the 32 patients who did not return for further treatment, 27 (84%) were planned for a second OCS, 3 (9%) for GA, 1 (3%) for SDF, and 1 (3%) for monitoring (Figure 3). For the 98 patients who returned for two or more OCS visits, 88 (90%) completed treatment at the follow-up OCS visit (Figure 4). However, 4 (4%) required nitrous oxide and 4 (4%) were planned for nitrous oxide after the second OCS visit (Figure 4). Three (3%) were planned for GA, 2 (2%) for monitoring, and 1 (1%) for silver diamine fluoride (SDF) (Figure 4). Overall, the rate of return for subsequent sedation was 47% (Figure 1).

Regarding the effectiveness of repeat sedations, 62 (63%) had both an effective first and second sedation, 15 (15%) had an effective first sedation but an ineffective second, 8 (8%) had an ineffective first sedation but an effective second, and 13 (13%) had ineffective sedations for both visits (Figure 5).



Figure 1

## **RESULTS** (cont.)



#### 2+ OCS Method for Completing Tx



- TX completed at subsequent OCS (88/98) = 90%
- N2O after OCS (4/98) = 4%
- GA after OCS (3/98) = 3%
- Monitor after OCS (2/98) = 2%
- SDF after OCS (1/98) = 1%

## **RESULTS** (cont.)



- Effective 1st, Ineffective 2nd sedation (15/98) = 15%
- Ineffective 1st, Effective 2nd sedation (8/98) = 8%
- Ineffective 1st, Ineffective 2nd sedation (13/98) = 13%

#### Figure 5

## DISCUSSION

The return rate for subsequent sedation was 47% (Figure 1) and the effectiveness of repeat sedations, regardless of initial sedation effectiveness, was a combined 71% (Figure 5). Many variables influence the effectiveness of repeat sedations which were not evaluated in this study, including if the patient is seeing the same provider, quantity of treatment provided, patient temperament, etc. Furthermore, some patients required different treatment modalities to finish their treatment (Figure 4). These findings highlight the importance of monitoring sedation efficacy and ensuring follow-up care for pediatric patients undergoing OCS in dental procedures.

There are numerous variables that determine patient return rates, including but not limited to patient and parent behavior, perceptions of treatment, finances, and scheduling conflicts, etc. These were not evaluated in this study. Further research is needed to evaluate the effect of these variables.

## CONCLUSIONS

- The rate of return for subsequent sedation was 47% (Figure 1).
- The majority of repeat sedations were effective at 71% (Figure 5).

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